

PIERRE WIGNY

A TEN YEAR PLAN
FOR THE
ECONOMIC AND SOCIAL DEVELOPMENT
OF THE
BELGIAN CONGO

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The illustration on the title page represents an ivory mask of the Wa-Rega
Drawing by J. Van Noten

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by
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Ph. André Cauvin.

NATIVE TYPE. Four hundred years ago, the French economist, Jean Bodin, wrote, "Il n'est richesse ni force que d'hommes." (There is no wealth, there is no strength, but in man.) In a new country like Congo, this axiom holds with full force. What the white man can achieve in Congo depends essentially on the Congolese. The population of Congo, although relatively small, is of sturdy stock, alert, intelligent and, to a large extent, well aware of what the future has in store for them, if they succeed in combining the strange gifts the white man bears with the typical elements of their native character and genius.

I.

THE SCOPE OF THE PLAN

JUSTIFICATION OF A PLAN.

First of all, why is a Ten-Year Plan necessary? The idea is not original; it is none the less essential: in the Congo, more than anywhere else, to govern is to foresee. A plan is justified for manifold reasons—administrative, economic, social and political.

1. — The public at large may not be aware of the conditions under which the officials assigned to work out Belgian colonial policy labor. Whether it be a question of basic problems or of momentary difficulties, whether it be a matter of definitive organizations or of temporary measures, of fundamental solutions or of palliatives, the restraints of an annual budget limit their activity. Whatever may be the necessities and the prospects, the calculated allowances of the State are confined to the current year. Thus, administrative action, whose permanence and continuity are so lauded, is constantly curbed by the yearly character of the budget. In practice, the State lives from month to month. One may well imagine what the consequences of such a situation would be in Africa. On the contrary, administrative programs, instead of previsioning a series of small annual achievements more or less coordinated, must be able to extend over a long period of time and embrace affairs in general. For everything is closely related: you cannot pick up one link without the whole chain following. It will not be possible, for example, for the Department of Agriculture to train the native peasantry if, at the same time, the Department of Education does not anticipate the formation of a larger number of assist-

ant agronomists, if the Department of Communications does not prepare for the disposition of an increased production, if, finally, the Economic Department has not organized, in the centers of consumption, a balanced economy, making surplus agricultural produce available for purchase by the urban populations. The development of the Congo economy must be studied as an entity. One of the merits of the Ten-Year Plan, is that it has given officials the opportunity to collate their projects and to coordinate them harmoniously within a common framework.

2. — We have just seen that an economy resembles a living body whose organs react one upon the other. Its development presupposes the existence of certain conditions. It is in this way, for example, that transportation or power production equipment is the cause, rather than the result, of economic expansion. Therefore, it is important that public equipment be adapted to future conditions in production and exchange, which means foresight, planning, coordination.

Moreover, the Congo economic system is still rather inorganic. Now is the time to determine how these features may be molded into a harmonious whole and which is the shortest route to prosperity.

3. — In the Belgian Congo, public authority has charge of more than 10 million natives. They are incapable of assuring for themselves sufficient rapidity in the evolution of their methods of production and a progressive rise in their standard of living. They are counting on the Belgians.

It is not enough to wait until the masses are caught up in current European enterprises. That is an evolution which is not without danger. We must avoid the depopulation of the rural areas, a wide-spread salaried class.

Besides, we must be on our guard lest the natural riches discovered or actually created by European technicians be despoiled rather than rationally cultivated. They constitute a public patrimony from which the community must profit. But, to that end, a system, an administration, a plan is required.

4. — Finally, the Government has to render an account of its transactions. That is a fundamental principle of Belgian law. But this responsibility can hardly be effective, nor can we judge the performance of the colonial departments, within the framework of a single budgetary period. It would be almost impossible to bring an enterprise of great breadth to the Congo unless we had previously determined the principles and measures of a general policy. The Ten-Year Plan will be a guide, a reference, a criterion.

PURPOSE OF THE PLAN.

It is fitting now to define the purpose of this Plan, which is so essential.

1. — *It is essentially economic.* In 1906, Leopold II outlined a vast program for the development of railroads and mines. In 1921, Louis Franck, the Minister for the Colonies, proposed to the Legislative Chambers a remarkable aggregation of public works, which was realized by degrees. Today, an economic plan is needed, as will be shown by an analysis of the Congo economic system. Of a certainty, we have devoted an important chapter to public works. But, we have many other pre-occupations.

How can we attract into the economic periphery, into the current of progress, all the rural populations which continue to stagnate in their ancestral mode of living? Are we certain that the accomplishment of the Plan will assure, by priority, a considerable rise in the native standard of living? Will there be an equilibrium between industry and agriculture, between the consumers and producers of foodstuffs? Will this economy be steadier today, more stable, will it present greater resistance to the variations of the juncture? The questions which we are endeavoring to answer are numerous. Here we cite only a few.

Of course, the Government of the Colony has duties which are not of an economic nature. It must administer the territory,

insure peace with foreign countries as well as internal accord. It is engaged in encouraging the development of political institutions which must be slowly democratized. Likewise, local custom, still a reality and the basis upon which the native civil statute rests, must be progressively modified and adapted to the needs of a society at once more complex and more progressive. These duties—and many others—rank among the most important. But the principles of our policy in these matters find no place in the present exposé.

It is well not to restrict the concept of economics too rigidly. It entails more than the production, distribution, and consumption of commodities. There are related problems that must be studied jointly. It would be impossible, for example, to work out an economic program without taking into account its social repercussions. Naturally, governmental projects relating to social legislation, although they are numerous and important, will not be found in this study; but, we shall study here the wage policy on which depend at the same time purchasing power, the will to produce and economic well-being. We shall study especially matters of hygiene, diet, housing, town planning; entire chapters will be devoted to public health or education. So true is it that, even from the economic point of view and not considering his eminent dignity, the most precious treasure in the world is man himself.

2. — *The Ten-Year Plan is restricted not only as to material, but also with regard to the region it covers.* It is exclusively concerned with the Belgian Congo. In Ruanda-Urundi live other peoples whose political statute is quite different. Natural resources, which must there be cultivated with a view to their material and spiritual development, are not similar. A special plan will be devoted thereto.

METHOD OF FORMULATION.

What procedure has been followed in formulating the Plan? A new group has been formed with which all the heads of the

various governmental services have collaborated. A special Secretariat has been created to incite studies, note discussions, coordinate conclusions. Week after week, these officials met together, first at Leopoldville under the presidency of the Governor General, then at Brussels under the direction of the Minister, to break away from too confining restrictions and to outline, in concert, a long-range program.

Private groups, also, have collaborated in this work. In Brussels, close contacts have been established, notably with the Association of Colonial Interests. In the Congo, officials have traveled throughout the Provinces in their search for information.

EXTENT OF THE PLAN.

This Plan is distinguished from preceding ones in that it admits of a synthesis. Any similar attempt is an intellectual adventure. It will be easy to find therein mistakes, gaps, blunders. But it was a magnificent risk—and a necessary one. As a certain wit has said, "It is a great advantage to have done nothing, but one shouldn't overdo it."

The risk was doubled when the Belgians decided it was necessary to set a time limit to the execution of this program. It would have been less dangerous to propose the works to be undertaken without prescribing a required period for their execution. What imprudence to arrange a rendez-vous, to tie oneself down to rendering accounts! But we could hardly do away with this exactitude. A plan has significance only if it is projected into the fourth dimension. When the latter is not determined, the former lacks coordinated principles. It can no longer be validly judged. It can be only a projection of the mind, a wish, an ideal, not a program of action.

In allotting ourselves a decade, we have been optimistic, maybe even audacious, but not reckless: this Plan constitutes the maximum that, today, seems capable of realization. It



WATER TRANSPORTATION. The riverboat, *Reine Astrid*, taking on fuel for the trip up the Congo. It is a stern-wheeler, like the Mississippi boats.

may be that future events will permit the completion of certain parts of the Plan in a shorter time than we have envisioned, while retarding the accomplishment of certain others.

EXECUTION OF THE PLAN.

The Ten-Year Plan is not of an obligatory character. Its approval does not mortgage the future. Every year, the Government will ask Parliament for the appropriation necessary for the 12 months to come. This will provide opportunity for controlling its execution and correcting errors of planning that have become apparent.

But the formulation of this Plan can neither halt nor delay the equipment of the Congo which is now in progress. On the contrary, and for this very reason, we are forced to begin operations. Already, in the budget for 1948, appropriations for the opening of the new fields for public works have appeared. Likewise, through legislative and statutory measures, the gen-

eral economic system of the Congo has just been routed in the course indicated by the Plan's conclusions.

II.

CONGO ECONOMY

It is fitting, at this time, to enlarge upon some general considerations regarding the Congo economy.

Duty and propriety decree that we begin with the expression of our deep sense of gratitude toward all our predecessors. Hardly 50 years ago, the first locomotive traveled from Matadi to Leopoldville, joining that remarkable river artery which is the River Congo to the ocean and to the world. We even succeeded in controlling the rapids which, for centuries, had halted the curiosity of travelers, the zeal of missionaries and the audacity of businessmen.

Fifty years—it is but the duration of the active life of a man. One is struck with astonishment merely at narrating the prodigious changes wrought by the presence of the Belgians in the heart of the Dark Continent.

After such a rapid development, this economy today presents undeniable signs of growing pains. There is no reason for us to be alarmed. Now is the time to consolidate the gains we have obtained and to prepare for new ones.

VULNERABILITY.

The Congo economic system is much too readily influenced by the variations of the economic position of the world. This weakness may be explained in two ways.

1. — *Congo economy is vulnerable, first of all, because it retains in a closed circuit only an insufficient portion of its pro-*

duction. The tree restores to the earth a portion of that which it has taken therefrom; by allowing its leaves and fruit to fall, it renourishes the soil. So it is with a balanced economy. The producers are equally the consumers; by using their salary as purchasing power, they induce new production. No colonial economic system could achieve this in its beginnings. For lack of factories, raw materials must, at first, be exported in their natural state. Were they manufactured in the country itself, they would have provoked new activities which, in turn, would have created additional revenue; they would have enriched the economy. Moreover, business corporations and private individuals, from year to year, send part of their income back to the mother country instead of spending or investing it on the spot. That is what is called a "Skimmer Economy." This expression must not be understood in a depreciatory sense; it describes, in figurative language, the stage through which a new country must necessarily pass. But the Congo is not, today, an entirely new country. It has left its childhood and entered upon its youth. We must desire and provide for the creation of an internal market which will be at once the justification for and the result of a more rounded economy.

Naturally, there is no question here of employing a protectionist policy nor of developing artificially, under the shelter of a customs protection, enterprises which are naturally viable. But, in the Congo as elsewhere, economic development involves giving a greater finish to raw materials, assuring more specialized operations for products, and providing for an increased internal market, stimulated by new local activities. It is a normal evolution which should be encouraged.

2. — *The Congo economic system is vulnerable because it is too exclusively based on exportation.*

From the economic point of view, this is dangerous. The great international markets where raw materials are handled are the nerve centers of world economy. In Africa, their fluctuations make themselves felt with speed and brutality. The prosperity

of the enterprises which are dependent thereon is, for this reason, always rather precarious. This is particularly serious for the small native farmer. The Territorial Administration continues its educative mission by advocating undertakings that will bring in steadier returns. But the natives lose confidence when, for lack of purchasers, the fruit, which has cost them so much trouble to produce and to harvest, lies rotting on the ground.

This economic sensitivity has distressing social consequences, as well. During the great crisis of 1930, l'Union Minière had to disband more than two-thirds of its European or native personnel. When it is realized that Katanga subsists in great measure on this magnificent enterprise, the gravity of such a decision is readily understood. A repetition today would be quite dangerous. The number of workingmen is constantly increasing. In the same measure in which they become adapted to their place of work are they less and less inclined to return to their native bush.

The instability inherent in this export policy reacts on the Public Services themselves. The colonial budget is very largely supported by the tax on profits and by the exit duty levied on exports. If, on world markets, quotations should happen to drop, the tax will have to be decreased in order to maintain the capacity for competition of the Congo enterprises. When prices are too low, fiscal sources tend to run dry, threatening the very existence of the Public Services. Whether it be a question of education, of public health, or of public works, our task of civilization runs the risk of being interrupted should there be a too abrupt diminution of government spending.

These are the reasons why an internal market must be established in the Congo. Belgium, too, is an export country, but over 8 million consumers accustomed to a high standard of living reside within its borders. When, during a time of crisis, commerce with foreign countries comes to a halt, the economic circuit closes up and becomes impoverished, but it is still sufficiently nourished to keep its enterprises alive. In other words, an internal market serves as a ballast for the economy.

The same situation must prevail in the Congo. Assuredly, it will always remain a country that exports its raw materials. Geography dictates this. But, on its soil, are 11 million men whose essential needs are still far from being fulfilled. In developing this market, not only will we be performing one of our principal duties, by improving the lot of the peoples entrusted to us, but, in addition, we shall be giving a more solid base to this growing economic system.

DUALISM.

The second characteristic of the Congo economic system is its dualism. Here we find a European economy subsisting at the side of the native economy. Admittedly, a goodly number of Congo natives work for white companies, whether it be as salaried workers, or as tradesmen. But, by far the larger portion of the population still lives in the bush, withdrawn from outside contacts. The Territorial Administrator, the missionary, the doctor, the agricultural agent, all come to their assistance, but their mode of life is scarcely different from that of their ancestors. They are backward and poorly equipped not only materially, but intellectually as well. Their standard of living is far too low.

This is in no way intended as a reproach. Civilization can penetrate into these immense stretches of land only slowly and progressively. After having conquered certain areas, it must now come to dominate the entire country. Such precisely is the main purpose of this Plan.

It is necessary to train and equip these masses who must become a factor in the nation's stability: they will become more productive. If they have more wealth at their disposal, they will, by the same token, have greater purchasing power and will become better consumers in that internal market whose necessity has been shown. Having become better producers and greater

consumers, they will also yield higher tax returns. It is surprising to note that, in the present budget, the native share in public expenditures is insignificant: for 1949, the native tax was reckoned at \$4,020,000 against a total receipt of \$91,252,040.

SUDDEN EVOLUTION.

The third aspect of the Congo economic system is that it is, at present, suffering the effects of a technical revolution.

1. — *To begin with, this revolution is making itself felt by a phenomenal scarcity, heretofore unknown.* The tropical earth seemed bountiful. Made fruitful by the sun and by the torrential rains, it appeared effortlessly to produce inexhaustible riches which many people came to develop. This is no longer true today.

This scarcity is to be noticed, first of all, in employment. Since the last war, for the first time in the history of the Congo, there are more jobs available than there are workers to fill them. Competition will inevitably give rise to increased wages. That is far from being an evil. But this evolution presents new problems of mechanization, of rationalization, and of professional education which it would be dangerous to try to solve by improvisations.

A like dearth is evident in the soil. It seems ridiculous to maintain that the soil could give out in this country which is 80 times larger than Belgium with a population of only 11 million. Nevertheless, we have learned of huge areas that have become useless because of erosion or of laterization.

Public equipment is falling behind present requirements. This third lack is holding back the natural expansion of the Congo. Recently, a bottling up of the port of Leopoldville had repercussions even in the most distant provinces. In several centers, industrialists, who could induce employment and pros-



A RAILWAY STATION does not have to be ugly. The station at Marchal, one of the points on the Matadi-Leopoldville line, proves this point with modest eloquence.

perity by opening a business there, are halted in their projects because adequate power is not available.

2. — *The technical revolution which is taking place in the Congo necessitates new methods in all fields.* This is the second factor of said technical revolution.

In the mining area, we have just about exhausted the alluviums. Having worked the surface, it now becomes necessary to follow the lodes underground. That which has been true for a number of years with regard to copper, is now coming to pass in respect to tin and gold. New techniques must be perfected by our engineers.

The same situation exists in the agricultural field. Today, specialists are devoting their attention to problems of mechanization, of fertilization.

All this proves that the Ten-Year Plan is not only necessary, but timely. We have here an economy in the full bloom of ex-

pansion. It is producing more goods and realizing greater revenue, but its expanded bulk wavers precariously on its too narrow foundation. This is the critical period in its evolution. The change will be accomplished without mishap if we calculate it exactly and discipline our efforts thereto.

III.

THE POPULATION

Let us now study the first economic factor, the population itself.

Men are, at the same time, the producers and the consumers, the agents and the recipients of all the economic processes. One feels rather ashamed at considering this question only in its material aspect, and ignoring the admirable work of civilization accomplished by our missionaries, our administrators, and the leaders of our various enterprises. But, once again, we are here exclusively considering an economic plan.

A. — THE NATIVES.

Let us first study the demography of the natives. Recent censuses disclose that the population level varies between 10 and 11 million inhabitants. The statistics to be found in one chapter of the Plan are numerous and interesting. Let us quote a few: of the population as a whole, 85% live in the bush, while 15% congregate either in or around European cities or in industrial villages. This last percentage seems relatively low, but assumes tremendous importance when we stress the fact that it is the most active portion of the populace, the best fitted to produce and to reproduce itself; those who remain in the native villages have less vitality.

This situation is dangerous.

In the bush, abandoned by the young men, the birth rate is too low. In the large cities, where customs and races are mixed, the feminine population is inadequate in quantity and often in quality. Thus, the population of the Congo is threatened in its very origins.

Another consideration deserves mention here. Technique being what it is, a native peasant can now produce a harvest capable of sustaining his own family and that of an industrial worker. If the exodus to the cities is intensified, the number of consumers of foodstuffs will be increased while producers diminish. In this way, the Congo is faced with the possibility of a dearth, or, at the very least, it will depend, to a dangerous degree, on imports for its provisionment.

The remedies are still the same: mechanization and rationalization. They are requisite, first of all, in the European industries which must be multiplied, for they are the most active leaven of this economy and the surest pledge of improvement in the native's condition. They are needed, too, in agricultural centers where they will make the villages more attractive, increase the capacity for production while reducing the effort necessary for the cultivation and preparation of food products, and raise the standard of living.

In the long run, the improvement of workers' tools will release man-power, which will then turn to other work, either in the village itself or elsewhere.

An important step has already been taken, in July 1947, by the establishment of the Native Welfare Fund. In the course of the decade, it will have the disposition of \$60,000,000, which will be exclusively devoted to the welfare of the inhabitants of the rural areas.

B. — THE WHITES.

Demography and Policy.

The demographic condition of the white population is good.

The time is past when only a few adventurers, to the despair of their families, set out for Africa. Colonial vocations are on the increase. In ten years, the aggregate of the European population has risen from 23,091 to 43,408, 72% of whom are Belgians.

Colonization should be encouraged. The presence of white men, whose standard of living is high, may be the incentive for that internal market whose necessity we have already demonstrated. Furthermore, the European colonists will act as economic educators: they will teach the most effective techniques to the native both by example and by formal training. Finally, from the political viewpoint, it would be well were a certain number of Belgians, by their example, able to give the natives a real appreciation of our democratic ideal.

In this regard, let us clearly define the Belgian policy. We allow no distinction whatsoever based on racial differences. This position was emphasized recently when we issued important decrees in favor of mulatto children. These latter have been admitted into European schools, not as a privilege due to the color of their skin, but because they are entitled to a culture and a way of life comparable to those of our own children. This is a fertile principle which may subsequently be extended to include the blacks.

We must struggle with all our force against the "color barrier," that detestable policy which, in order to protect the white man's position, gives him a monopoly over certain professions and relegates the natives to subordinate occupations. Neither do we permit the presence of "poor whites" who, as a result of the social "dumping" of indigenous peoples, are obliged to be satisfied with a standard of living incompatible with the dignity of a civilized man.

These contradictions can be reconciled by affirming that the white man can justify his presence in the Congo only by his superiority. It is his duty to enrich the Congo economic system by bringing thereto those qualities of which it is devoid. He has

traditions, a professional training, capital, which the natives lack and which will benefit the community as a whole.

Official Encouragement of Colonization.

In all this, the Public Authorities will play an important role.

First, we must take care lest men who are capable, but impecunious, be prevented from answering the call to a colonial vocation. A Colonial Credit Corporation was recently established to supply necessary funds to those who can give evidence of the requisite qualities.

The Plan makes provision for the professional training and installation of agriculturists (an agricultural survey, previous investigation of openings, delimitations of grants, junction lines to public transportation, construction of necessary buildings, the heavy work of clearing the soil, mechanical equipment). Likewise, for craftsmen, a complete résumé has been made of the possibilities offered to them; plots of ground have been set aside for them and, if need be, homes and workshops will be placed at their disposal.

Here we must emphasize the importance, to the colonists, of electrification projects. If the small European contractor outstrips the native, it is because, thanks to his technical training and unflagging application, he is able to utilize a delicate material. Furthermore, he must have cheap utilities at home. The policy of the Government will be to promote the development of small workshops.

This effort will necessitate an outlay of more than 10 million dollars in ten years, half of which will be in the form of loans.

Comportment of the Colonists.

The efforts of the colonists themselves (which are the more important) should be commensurate with those of the public authorities. Here, indeed, we find ourselves in the domain of private enterprise, and private individuals, so jealous of their independence, must rely on their own vigor and toil above all else.

I cannot avoid discussing certain general considerations here. First, we must determine just what the colonists need. If they want to live as well-to-do bourgeois who, right from the beginning of their installation, will have the advantage of a high standard of living, the possibilities of immigration are curtailed. But Belgians have never looked upon manual labor as debasing; even in the colonies, in healthful regions, certain works will be accomplished by the white man himself, assisted by his family. What we must offer our young agriculturists is the ability to work, to carve out suitable careers for themselves, to maintain and progressively improve the way of life to which their fathers accustomed them. Those who advocate colonization with all the trappings of wealth are, in reality, the worst enemies of colonization.

To this consideration, we must add another: the paternalistic policy should be abandoned by degrees, as well by the State as by the various companies. Indeed, at present, an agent leaving for the Colony is assured not only of drawing a salary, but also of being lodged and cared for. In this way, a very high standard of living is established which, by comparison, excites the envy and recriminations of the independent colonists.

It might be preferable, at least in the cities, for agents to receive a contractual remuneration which they would spend at their own discretion and responsibility. Colonization would be the gainer, for professional men would come to join the colonizing artisans and agriculturists. The economic system would progress a step further.

Finally, the big companies, up to the present, have themselves ensured all services connected with their main undertaking. They maintained not only hospitals and schools, but also market-gardens and workshops of all kinds. This is readily comprehensible. Being the first to settle in the interior, they had to provide for all their needs. Now that the colonial population of the Congo has increased, it would be to their advantage to turn

these accessory services into small independent concerns which would each support a colonist and his family.

Outlook.

These general considerations will help us evaluate that ambitious and irresponsible policy which is upheld in certain circles. They speak to us of settling 100,000 families in the Congo within a short time. Supposing that each one, on the average, uses the output of 100 laborers, 10 million men would be required to serve them. Where would they be found? The same difficulty exists with regard to the fertility of the soil which, as we have seen, is beginning to wear out.

The results of what has been called "colonization by injection" should be considered seriously. The word evokes a definite picture: thousands of men being artificially thrust into an economic system which does not know what to do with them. They will be brutally ejected at the first crisis.

To this colonization by injection, we must oppose colonization by absorption. The colonial economic system, by expanding and perfecting itself, will itself increase the demand for workers. Those who answer this call will easily be absorbed into some Congo community to which they will bring needed talent. Thus, we again return to the same truth: economic superiority is the sole justification of the superior standard of living to which the colonist has the right to aspire.

Let us note, in closing, that the first steps toward the formation of an "elite" colony have already been taken. In addition to the assistance given by the Colonial Credit Corporation toward the settlement of Belgians on African soil, the recent Decree on Immigration aims at placing the same restrictions on foreigners that we impose on ourselves. Hereafter, those only will be admitted to the Congo who will be an asset to the community, — not those who wish to live at its expense.

C. — THE NATIVE WELFARE.

Let us return now to the native population. Certain of its essential needs are not met. The Plan must, therefore, be drawn up in such a way as to give priority to their fulfillment. This is a social necessity. Improvement in the natives' living conditions is the justification of our presence and the moral reward of our efforts. But, let us again repeat, this policy is imperative for economic reasons as well. This vast internal market, so avid for commodities and so well fitted to provide more amply for its own needs, will be the stable and endlessly extensible basis of the expanding Congo economic system.

Food.

With regard to the first of these essential needs, food, it can be asserted that famine is no longer to be feared in the Belgian Congo. The Administration has made a magnificent effort and succeeded in enforcing the cultivation of food products which everywhere assures the minimum essentials.

In Ruanda-Urundi, where a narrow, sparse region supports a large population, the danger has not been completely averted. That is why it has been decided to build silos costing \$1,600,000. They will provide for the lean years, as did the granaries of Joseph in the Bible. In the Congo, we meet the same problem, but only seasonally, in Leopoldville. In the chain of silos recommended by the Plan, we shall note with interest the equipment of the capital.

But, if the basic food supply is assured, the ration is, as yet, neither rich enough nor sufficiently varied. We shall treat this subject at greater length further on when we outline the agricultural program, which calls for an outlay of more than \$20,000,000.

Clothing.

In these tropical lands, clothing is an ornament and satisfies a requirement of decency. That is a primary and adequate jus-



MEDICAL CARE. *The native hospital at Costermansville.*

tification. Naked men can hardly be civilized. But, on the high plateaus of the East, the loin-cloth is a necessary protection as well; it is disturbing to meet so many naked children. Statisticians tell us that, in 1947, 7 metres (about $7\frac{1}{2}$ yards) of material per person were purchased in the Congo. That is not enough. We can count on private initiative to solve this problem. New and important textile developments are growing up on African soil. The most modern techniques will be used to provide the people with a quality product which is yet reasonable in price.

Housing.

In the Congo, the most difficult problem to solve is housing.

1. — Let us speak first of Town-planning, which is a much calumniated science. Certain people will cooperate only because of their concern for aesthetics; others will impose interminable administrative procedures, which discourage all private initiative. In reality, Town-planning is necessary to assure the health and comfort of the residents and to save time and money by

facilitating the transportation of people and goods, as well as the efficiency of the various services.

Mistakes have been made—we must recognize that fact—but nothing has been jeopardized. Today's centers of population are as yet only the kernels of the large cities of tomorrow. We have already taken care of the essentials. The instruments are forged. From the juridical standpoint, the Decree on Town-planning has been passed by the Colonial Council and has just become operative. From a practical standpoint, three architects are drawing up plans for the arrangement of the principal cities, or rather, general maps which will enable us to forecast and direct their development. Finally, a Commission is at present engaged in working out a general system of public thoroughfares.

Town-planning concerns the native community even more than the European. That is why the general plan of Leopoldville provides for very beautiful districts to be set aside for the native inhabitants. There they will find comfort and a setting worthy of their future.

2. — After Town-planning, comes building construction. Here again, problems of applied science arise. The natives continue to build just as generations of their ancestors did before them—that is, in an extremely rudimentary way. Even in the towns, they build straw huts. Accustomed to moving their farms every few years, most of them have never known anything else.

The Europeans build villas like those of the Belgian seaside resorts of Zoute or of Spa. Attempts at adjustment are not consistent. The systematic study of the use of local materials and the art of building with respect to tropical climate will help us not only to lower costs, but even to reduce the temperature within the homes, which would considerably improve living conditions in the Congo. This problem seemed so very important that the Institute of Scientific Research in Africa (IRSAC) has been commissioned to make an intensive study thereof.

But we have to build now—we cannot wait for its final conclusions. The housing problem is urgent. In this chapter, we

are dealing with the conditions in which the Congolese live. The situation in the bush, however, is quite different from that in the industrial villages, or that of the "centres extra-coutumiers" (self-governing native groups within a white community).

It is difficult to find any solution for the bush. Further on, we shall see that considerable effort has been exerted toward the establishment of a native peasantry permanently located on plots of land to be cultivated rationally. If this policy succeeds, the construction of permanent houses can be undertaken. In Ruanda-Urundi, where the population, by very reason of its density, is stabilized on its property, the Administration, last year, began a vast program of rural construction throughout the whole territory.

As for the industrial villages—up to the present, improperly and unfortunately termed "mining camps"—an Ordinance from the Governor-General has set forth in detail the legal obligations of employers: air-space and number of rooms, water and public lighting whenever possible, and some attempt at laying out the town. It is not good for men to live on dumping grounds in the midst of rubbish. We have suffered too much in Europe from mining towns for us to allow their construction in Africa.

We must, above all, stress the situation of the large "centres extra-coutumiers" where the population is very numerous and heavily concentrated. Leopoldville, for instance, has a group of more than 130,000 natives. This situation caused the recent foundation of the "Native Village" Bureaus.

Housing developments will mean lower costs, and, at the same time, assure compliance with Town-planning regulations, with public hygiene and with the principles of aesthetics.

Each large center will have its own Bureau. The one in Leopoldville will have to build 20,000 homes as soon as possible; the others, on the whole, will face a similar task. An outlay of \$40,000,000 has been provided for in the Plan.

The Bureaus assure a second economic result. They enjoy a borrowing power which assures them the necessary funds with

the Colony's guarantee and encourages the settlement of new contractors, of experts. Their presence will be of profit to the whole economic system. Thanks to their competition, the building market will be standardized for the administrative villages as well as for the native quarters.

3. — The new quarters must be serviced by Public Works. At present, the situation is far from satisfactory. Drainage is not properly assured and, with the exception of one sole line, at Leopoldville, there is not a single bulb to light the native quarters.

Here, as elsewhere, it would be advisable to provide an adequate supply of drinking water. The Ten-Year Plan has given this a prominent place. The ten systems operated at present by the Water Commission will be further developed. Twenty-seven new systems will be established in subsidiary centers. The bush will not be neglected: groups of well-diggers, financed especially by the Native Welfare Fund, will be sent to pipe water from the springs, to sink wells and to bring this staple of comfort, indispensable for civilized living, to those villages which are sufficiently permanent. These hydraulic projects represent an outlay of \$20,000,000.

Its execution is already in progress: the Décret Organique sur les Offices has just been promulgated. A special credit of \$600,000 for the road system of the "centres extra-coutumiers" has been written into the 1949 budget. The Water Commission is bringing drinking water to the centers, and for the villages in the bush, it has concluded an agreement with the Native Welfare Fund.

Hygiene.

The medical program envisions hospital equipment for 29 large centers. In each territory, the capital and, fairly often, subsidiary stations, will be equipped with a modern hospital. This will necessitate improvements in 50 territorial hospitals and the creation of 43 new hospitals. The program also includes

the foundation and improvement of laboratories and dispensaries, the financing of great medico-social works and of campaigns against epidemics.

Those who are familiar with the Congo will readily grasp the magnitude of the program here condensed into a few lines. The Public Authorities will devote \$40,000,000 thereto. To this sum, we must add nearly 20 thousand more to be spent toward the same ends by private enterprise. Furthermore, this total does not take into account the cost of the daily functioning of the Medical Service which will continue to burden the ordinary budget during the ten-year period.

Money will not be lacking while there is question of saving human life. But we must find men. The recruiting of doctors is difficult. We no longer find sufficient colonial vocations among them. However, the Government has made vigorous efforts to encourage them. Doctors' salaries are higher than those of other officials who are university graduates; the functional setup of the Administration has been specially altered with regard to certain requirements. In 1948, the Francqui Foundation granted ten scholarships of \$1,000 to young students who, for three months, will travel about the Congo and let the miseries that plead for their devotedness work upon their sympathies. It is possible that this gesture will be repeated. Finally, the Ministry, in conjunction with the Universities, is considering the possibility of organizing in Leopoldville practical apprenticeships which will complete medical studies.

But it is not enough to create a corps of doctors: we must still train native assistants. There are some who have already made advanced studies in institutions on a university level. Their number will be increased. Moreover, a legion of nurses and nurses' aides, always more numerous, will be trained in schools connected with large hospitals.

We have already undertaken to put this very important chapter of the Ten-Year Plan into effect, superimposed on the work already accomplished.

Education and Training.

Public education has just been reorganized. Without attempting to schematize in a few lines any such complicated structure, let us restrict ourselves to the consideration of its most salient points.

Some people will, perhaps, be surprised to discover that a place has been reserved for the ancient classics in the field of secondary education. Surely, the Congolese must need a more practical education. That is true for the masses. But, by establishing "colleges" for the natives, we wanted to prove that we were not reserving for our children alone the monopoly of a high intellectual training and, as a consequence, of the professions to which it gives entree.

To provide access to higher education for the students thus trained, the school at Kisantu has been reorganized as a university center. Another center, under the control of the public educational system, will be set up at Leopoldville.

The education of women must be developed. Formerly, families, for social, religious and, perhaps, economic reasons, kept their daughters at housework. Even today, the feminine scholastic population is much lower than the male. And yet, civilization will make progress only in the measure in which the education of women is furthered. In the Congo, as elsewhere, it is at its mother's knee that the child receives the first rudiments of its instruction. The education of women is important for another reason. It is touching to hear the complaints of the educated negroes who cannot find companions of their existence among today's women. Man can found a home only with a woman who is his equal and collaborator.

Finally, the teaching of European languages should be encouraged. Certainly, the mother tongue suffices for their early education and even for the majority of children. But it no longer meets the requirements of the elite who seek to be initiated into the things of the mind. We must establish yet another bond

between them and us; we must open to them a wider gateway to civilization. It is hard to understand why, even at the present time, so much effort is devoted to teaching a "lingua franca," formerly propagated by the Arabs, *Kiswahili* or any other completely artificial native language. Surely it would be better for French to become the vehicle of thought among those small tribes which do not speak the same language.

The program represents an investment of \$40,000,000. To this sum are added recurrent expenses and the gratuitous services of the missions, making a total of more than 200 million dollars for the decade.

Functional agreements have been signed determining the conditions for the collaboration of the Administration with the Belgian and foreign missions and the educational system, and syllabuses have been worked out.

D. — SALARIES.

It does not suffice to assure the production of goods; we must still bring the power to buy within the natives' reach. The Negro must be in a position to procure adequate nourishment, to pay his rent, to acquire objects which will progressively improve his equipment and comfort.

The Government will resolutely pursue a policy of progressive revenue increases. That of the natives can be augmented in three ways. First, by increasing the output of salaried workers and of the independent producers: a matter of know-how and of technical equipment; then, by better preservation of the harvest yield: a matter of storage and disinfection; finally, by making distribution easier and less costly: a matter of transportation.

Contractors must be alert to augment the productivity of their enterprises, for salaries, in the course of the decade, will necessarily increase in face value and in purchasing power. This evolution has already been set in motion by the lack of appli-

cations for employment. An abrupt increase would endanger Congo ventures which already suffer from the pitiless competition of the international markets. But a gradual, well-prepared evolution would preclude any brusque shock. Mechanization, professional training and rationalization would render it possible and fruitful.

This evolution is warranted not only by social considerations but by economic motives also. As has already been said, we must nourish the internal market by more abundant revenue more widely distributed, which will be spent locally and will initiate a new production cycle.

CONCLUSIONS.

\$30,000,000 for the agricultural program, \$40,000,000 for housing, \$20,000,000 for drinking water, \$40,000,000 for education, \$40,000,000 for training; these are the sums the Public Services will spend directly for the welfare of the native population. It will benefit, moreover, as will the community as a whole, from other expenditures invested in the equipment of the Colony.

The program is, therefore, eminently social. To these sums, we must add those which will be spent toward the same ends by individuals. Furthermore, the regular budget will continue to sustain the costs of the functioning of all these Public Services: the figures quoted include only new investments and not the financing of existing services. Finally, a large portion of these expenditures is devoted to salaries, which will continue to burden future budgets; for the territorial, agronomic and sanitation officials, to whom falls the mission of helping the greater part of the native population advance along the road of progress, will be kept in office.

IV.

PUBLIC EQUIPMENT

The colonial economic system is hampered in its expansion by the deficiency of public equipment.

Businessmen cannot be asked to install and develop their ventures, to increase the opportunities for work, to create prosperity, if the requisite power is not placed at their disposal. Now, in the Congo, only a small part of the immense hydraulic resources is operative.

In the same way, the transportation system is inadequate. Last year, the bottling up of the port of Leopoldville threatened the whole Congo economic system. Tons of corn and perishable commodities, fruits of a bitter toil, rotted on the spot; the equipping of the interior was delayed. A veritable transport battle took place in the port of Leopoldville. It was won, but still we cannot live in a constant state of alarm. Communication and transportation facilities must precede and stimulate production.

In this regard, what is the role of the State? Some control is imperative. It is a task for the Public Services which should function to the advantage of all, with privileges for none. Moreover, the State must control tariffs. Any venture, of which the Public Treasury assumes a share of the responsibility, will be advantageous to the economy as a whole, since it stimulates the creation of new enterprises. Any loss will be balanced by an increase of economic activity which, in turn, will augment fiscal returns.

The same observations hold good for services connected with transportation development. Whether it be a question of the "chain of refrigerators" or of the "chain of silos," the State should exercise some control, otherwise those who head these enterprises will be able, at will, to accept or to reject merchandise, to flood the market or, contrariwise, to hold back products, and thus secure an actual monopoly for themselves.

This does not mean that the State should, itself, assume the responsibility of management. But it is responsible for the organization of this national capital equipment and will control its operation.

To determine the importance of this equipment, a work hypothesis must be drawn up. Statisticians have catalogued the figures with which experience has provided them. They have verified the fact that, every ten years, Congo production has doubled. It is to be hoped, without undue optimism, that the coordinated application of the Ten-Year Plan will enable us to maintain this standard. Even should the expansion be less rapid, it is better, in such matters, to aim too high than too low, for public equipment must always precede consumers' needs.

A. — COMMUNICATION LINES.

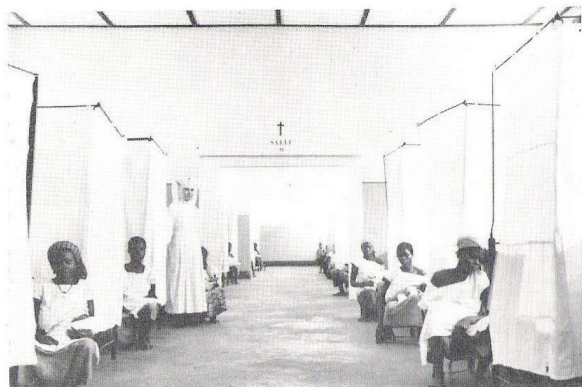
Generalities.

Superimposed on a map of Europe, Congo distances assume their true proportions. Communication lines create wealth in two ways. First, they enhance the value of the provinces in the interior. Such plantations, such mining developments as would show a deficit with a given tariff, become solvent when transportation costs are reduced.

All along their courses, the navigable rivers, the railroads, the highways open the intermediate regions to civilization, to business traffic, to social progress. For example, between Leopoldville and Matadi, local commerce represents 35.32% of the general traffic of the Bas-Congo railroads.

Without attaching too much importance to strategic considerations which justify the existence of a rational system of communications to the heart of the African continent, we must again add that communication lines are a powerful tie assuring the economic and political unity of the country.

But what are these communication lines? Which are more to our purpose?



MEDICAL CARE. A maternity ward in the native hospital, Leopoldville.

Geography dictates a preference. The Congo River and its wonderful system of tributaries spread out over the whole territory. These natural routes form a passageway for the barges which, for a reasonable price, transport enormous loads.

It is difficult to determine what criterion will be the basis of choice between railroads and highways. The railroads can show a profit only when carrying more than a certain tonnage, below which, it is preferable to use heavy trucks which would travel on modern roads.

There still remain the air-lines, whose importance increases each year as much from the standpoint of internal relations as from continental and intercontinental communications. The Belgian Congo is destined to become the turn-table of Africa. Its favorable geographic position is an element of prosperity, giving an advantage we are determined to keep.

In conclusion, navigation routes constitute, at the outset, the principal lines of our African communication system. Highways and railroads are to it what the English so expressively call "feeder lines." But, their work will be progressively completed

and unified. Henceforth, in laying out railroad lines and highways, it will be necessary to anticipate the time when locomotives will haul trains from one end of the Colony to the other and when powerful trucks will cross on pivotal highways.

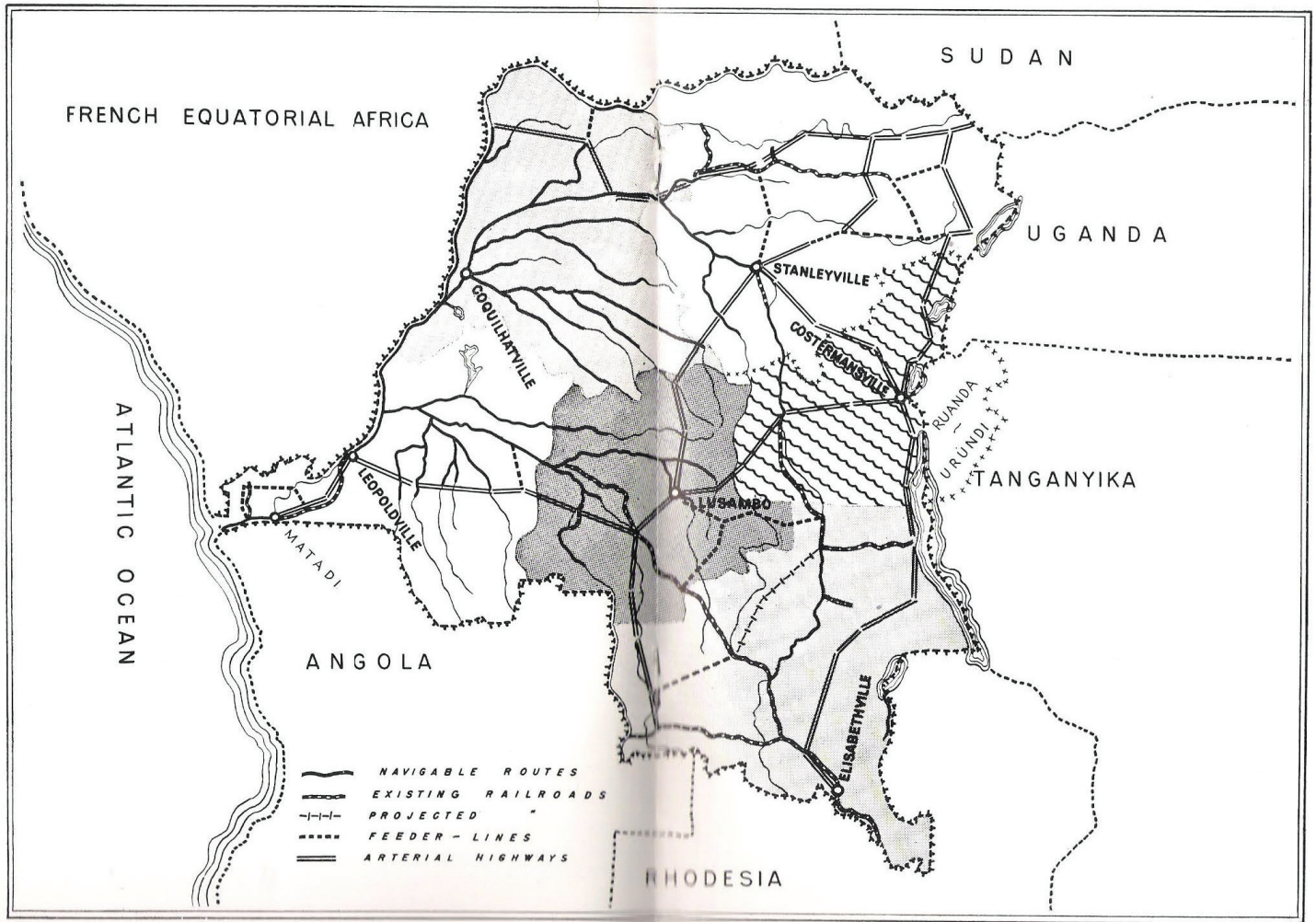
Navigable routes.

Navigable routes are a gift from heaven. But this gift must be developed. Of an approximate total of 14,500 miles, about 7,500 are navigable by 40-ton barges; 5,500 by barges from 150 to 350 tons and only 1,500 by barges from 800 to 1200 tons.

The Plan is very insistent on the necessity of hydrographic studies. The Congo rivers are like a living organism: they change. They have their periods of flood and times of drought, their navigable sections and their sandbanks. All this is changing and must be carefully studied. The Hydrographic Service, suppressed in 1935—a costly economy—must be reestablished and intensified. Its researches would be directed towards rendering the waters navigable in all seasons by greater uniformity. But other research, of a more scientific nature, will be undertaken by the National Committee for Hydrographic Research in the Congo, which has just been organized and which will collaborate with IRSAC.

1. — It is necessary, first of all, to improve navigability itself. On the lower level of the River, from the Ocean to Matadi, traffic is often delayed. Sea-going ships lose up to 24 hours because the shoals of the river can be crossed only at high water and because night sailing is out of the question. Modern ships are expensive, these delays increase the financial burdens which, in turn, augment freightage and, consequently, the prime costs of the whole Congo economic system. To reduce them, it is necessary to carry out a program of dredging and of buoyage.

The same problem arises for the intermediate level which extends for 1,083 miles from Leopoldville to Stanleyville, and for the upper level which is broken by rapids. A grandiose project has been proposed. The River is partially fed by the



overflow from Lake Tanganyika, an interior sea 500 miles long. It might be possible, during the rainy season, to dam the lake waters, in order to use them during the dry season and thus assure the complete and permanent navigability of this wonderful artery of our Colony. I do not know if the idea is economically feasible; in any case, it merits serious study.

2. — It is not enough to make the rivers and tributaries navigable. We must also modernize the ports, which are, in order of importance, Boma, Matadi, Leopoldville, Stanleyville and Port-Francqui.

In this respect, the Plan provides manifold technical details.

Let's take two of the main problems. Situated 92 miles inland from the coast, Matadi is the farthest point sea-going ships can reach. There they are halted by the rapids. It is to be wondered whether Matadi, set in a deep, narrow valley, is adapted to the development of a large maritime port. Some have disputed this and wished to move the port of debarkation and embarkation back to the coast. This question has been the object of painstaking investigations which have resulted in definite conclusions. Technically, it is quite possible to equip the port of Matadi to handle heavy trade; economically, this solution is less expensive and will provide for the removal of Congo produce at lower costs.

The situation at Leopoldville raises a different problem. Merchandise brought by rail from Matadi is there transferred to barges which, according to the current expression, transport it to "the height" (*le haut*); that is, following the majestic sweep of the river, to Stanleyville on the Congo or to Port-Francqui on the Kasai. On the return trip, they deposit at Leopoldville the great bulk of the merchandise for export. Its geographically imposed function is to concentrate on its own soil the manufacturing industries which will increase the value of the product before it is shipped abroad. But it may not be advisable to add an industrial and shipping center to the already crowded residential city on the banks of the River. The Ten-Year Plan con-

templates moving new installations 20 miles higher so that the vast plain thereabouts will provide plenty of room for their expansion. This recommendation deserves serious consideration. It would have the advantage of preventing overconcentration of the population and of locating the native quarters near their place of work.

The Congo economic system is a huge triangle whose base rests on Leopoldville and Elisabethville, and whose vertex is Stanleyville. This last center is not so important as the other two, but it gives promise of a brilliant future. We must provide it with both electricity and communications that it may fulfill its vocation.

3. — There remains the question of transportation. We need a fleet of modern tugboats equipped with Diesel, instead of wood-burning, engines. At the refueling stations, the forest, already ruthlessly exploited, is being driven ever farther back from the river. Wood for fuel is, to the surrounding peoples, a tax which is becoming more and more burdensome. Moreover, the loading of this combustible slows up the rotation of the boats.

It is also essential to provide radar apparatus to facilitate night travel. Large barges must be enabled to transport their cargoes in one trip and at slight cost.

The total of all these projects, on which depends the general growth of the Colony, represents an expenditure of more than \$80,000,000. The undertaking has already been energetically attacked.

Railroads.

At the present time, there are six public systems of genuine "feeder lines" linked with the water route, but without any connection among themselves. The geographical situation seems to indicate a promising solution. A railroad from Leopoldville to Port-Francqui crosses the Congo from one end to the other and links Katanga with the sea. To this great artery will be joined the line already begun along the bank of the River by

the Grands Lacs Railroad. These are bold plans that the future will undoubtedly confirm, but they must now be incorporated in the Ten-Year Plan, even were it only with a view to initiating the project.

Today, only the central portion of the great artery, from Port-Francqui to Elisabethville, is in operation. The western extension toward Leopoldville and Matadi, will double the Congo-Kasai river route; undoubtedly, new regions could be opened up by extending the line farther south, but, at the present time, the probable traffic would not warrant the large investment necessary. On the other hand, the eastern part of the project linking the lower branch of the Grands Lacs Railroad and the B.C.K. can be realized right now by a line from Kamina to Kabalo. This project can be amply vindicated. First, it completes the first African transcontinental line, from Dar-es-Salaam to Lobito. It prepares the way for that internal artery of which we have just spoken. It establishes, in the third place, a link between the Eastern Congo and the whole railway system which, by means of the Katanga line, reaches as far south as Capetown. The project involves the construction of a junction line and the respacing of the tracks of the Grands Lacs Railroad (so as to accommodate regulation-sized trains). The cost would not be prohibitive in view of the anticipated traffic.

The question of constructing a railroad between Costermansville and Stanleyville poses another problem. No one denies the necessity for joining these two cities. In fact, it is obligatory for the Kivu and Ruanda-Urundi to be put in direct communication with the national route and the Atlantic Ocean. But what constitutes the best means of communication is a matter of dispute. Extensive surveys have ended in the conclusion that a highway would give greater service than a railroad, taking into account present as well as anticipated traffic over a number of years. This highway would serve the same purpose as a railroad and would be much less expensive to maintain. Not only would it be an outlet for the products of the East, but it would

open the region between Kivu and Stanleyville to civilization and development. Of course, it would have to be a modern highway allowing the use of heavy trucks.

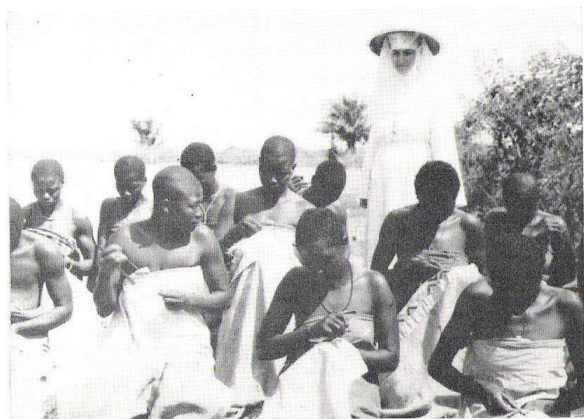
On the other hand, the Ten-Year Plan expects that the Kamanola Railroad, which has a mountain as its terminus, will be dismantled, its stock recovered, and that it will be replaced by a heavy-traffic highway from Costermansville to Uvira. This would be a second method of improving intercourse between East and West.

The cost of the rail transportation program is over \$20,000,000. The State will not have to assure this sum. For financial reasons, it is preferable for private enterprise to shoulder this responsibility. Of course, administration, as in the past, will have to be carried on in the public interest, under the control of the State, which will regulate fares.

Highways.

On December 31, 1947, the highway system boasted 62,727 miles. It is one of the finest endeavors of the Territorial Administration and private enterprise. But these hard dirt roads cannot stand heavy traffic. The Ten-Year Plan provides for the construction of several arterial highway routes which will cross the Belgian Congo from end to end, north to south, and east to west. (See attached map.) We have already explained why these arterial routes are necessary. Assuredly, in the present state of the economic system, we do not envision a heavy truck and its trailer, carrying 15 tons, rolling without stop from Costermansville to Leopoldville. But, from now on, we must clearly plot the general outlines of a future system. Besides, it will often be sufficient simply to improve existing roads by modernizing them. The roadbed of these superhighways will have to be especially well cared for because it will be permanent. The carpet will vary according to the exigencies of local traffic.

In respect to the highways, mechanization is just as essential



NATIVE WOMEN AT SCHOOL. Under the guidance of a Franciscan nun, native women of the Kasai learn velvet embroidery.

for construction as for maintenance. The State gives a bad example by itself resorting excessively to poorly equipped labor. The problem is more difficult than it seems at first sight. It is not enough to have bull-dozers and levelers. We still have to know how to use them. There is nothing more distressing than the sight of one of these iron monsters struck with paralysis and surrounded by its idle crew waiting—often for weeks—for the arrival of a spare part or for some damage to be repaired. Every businessman has experienced these disappointments. The problem is to establish permanent maintenance and repair shops and to insure the supervision of an adequate number of European technicians. With such an extensive network, organization difficulties are numerous, but they mustn't stop us. In order to stabilize native enterprise, we must, before all else, free labor, suppress forced labor which is often very onerous, release the Territorial Administration from harassing duties which distract it from its principal mission.

Even if we reduce the highway system simply to its arterial routes, even if we limit the hard carpet to the needs of present traffic, considerable expense is entailed. The \$120,000,000 set aside in the Plan represent one of the most important provisions of the ten-year budget. But we must not only calculate the sum total of expenditure, but we must also take into consideration its general usefulness, which is beyond all dispute.

The Government has not remained inactive during this last fiscal period. The beginnings are already apparent. Experiments have been prescribed with a view to striking some kind of balance for mechanized enterprise; the cost of the construction and the maintenance of a roadway by archaic methods must be compared concretely with the prime costs of mechanized construction. This comparison is valid only if, for the latter, we also take into account, were it only approximately, the indirect advantages of using fewer laborers.

Air routes.

It remains to study the airline system. The Berlin airlift gives some idea of what can be accomplished with regard to the transportation of merchandise by air. But this is only a remote prospect. Henceforth, the airplane is the means of long distance transportation both for people and for some very valuable cargoes. It has transformed life in the Congo by bringing the various communities scattered over that immense territory closer together; now the Colony is only 24, or rather 17, flight hours from the Mother Country.

In the Belgian Congo as in Belgium, the development of the airlines has been confided to private enterprise. As for Sabena, the foremost of the companies serving the Colony, the influence of the Public Authorities, and especially of the Colonial Government, predominates. Recently, its capital had to be increased so that its air fleet could be modernized. The Department of the Colonies seized the occasion to have its rights more specifically defined by law.

When operation is in the hands of private enterprise, the Public Authorities require specifications. Moreover, they must have the authority necessary to exact the establishment of new lines, required for administrative or economic reasons. Sabena has the monopoly over the lines it now operates. New lines will be assigned by public allocation, which encourages healthy competition. But if the allocation is ineffectual, the authorities can require Sabena to open the proposed line, with a guarantee of indemnity against possible deficits. So, from now on, we shall have a flexible legal organization, which will insure the operation of an airline system in conformity with public interest.

The State has the responsibility for the construction and maintenance of the landing fields. It is a grave responsibility. The figures are striking. A DC-4, fully loaded, weighs 33 tons and has to be able to land at a speed of 84 miles an hour. The life of 45 passengers depends particularly on the condition of the runways. This means they must constantly be improved in order to meet the requirements of ever more powerful planes. We must also see to it that the allied operations—such as meteorological and radio coverage to assure good navigation and hangars to protect the workshops where the motors are overhauled—are well kept up.

Around the triangle of big airports, formed by Leopoldville, Elisabethville, and Stanleyville, and extended by the hop from Libenge at the entrance to the Congo towards Brussels, secondary and relief airports are appropriately distributed.

The cost of the creation, installation, and equipment of these airfields is nearly \$20,000,000. Here again, the Plan has already been put into operation. The most important of the decisions to be made was whether the Leopoldville airport, which throttles expansion, should be moved. The expense was enormous. On the other hand, all computations showed that the necessary equipping and lengthening of the present runways was almost as heavy. It seemed wiser to be farsighted while there

was still time and to give this ever growing city freedom to expand.

Associated Services.

To appreciate fully the whole attempt to equip communication lines, it is necessary to superimpose the three ground systems. A reading of the map will verify the fact that water, highway, and railroad together penetrate deeply into all areas; each of them will be included in the economic circuit. Over this relatively dense system, the air lines will cast their lighter net.

But these communication lines must be so equipped that merchandise may be transported with care. That is why the Plan provides for the establishment of a "chain of refrigerators," of a series of silos and warehouses, of tank installations for gasoline.

The silos are not only necessary to insure proper preservation of merchandise. They constitute also the material basis of product control. Foreign markets are conquered; but many commercial ventures run the risk of failure if the buyers' confidence is destroyed by the faulty deliveries of certain unscrupulous producers. That is why the Government, supported by the majority of business leaders, intends to issue certificates of origin and quality; all merchandise forwarded through the Leopoldville silos will also be covered by official attestation. At present, negotiations are under way with a firm that specializes in handling this type of public service.

B. — POWER.

The technical equipment of the Congo also includes an adequate supply of power for the use of contractors. The utilization of the forests is becoming ever more difficult as the places where the trees are felled recede farther away from the centers of consumption.

The coal veins discovered up to now in the Congo are insufficient to provide for the needs of the Colony. Those of bitu-

minous schists, up to the present, allow us to hope only. We may look forward to the use of alcohol mixed with mineral oils. We should be able to manufacture synthetic motor oils, especially from vegetable oils; but this process, at the present price of fats, is not profitable and, in any case, the quality that could be used is inferior. On the other hand, hydroelectric resources are tremendous. From all sides, inexhaustible quantities of water stream down into the central basin: part of this power must be harnessed. The problem is urgent. The establishment of numerous enterprises is prevented because the power essential to their operation is not available. Electricity will operate not only the machinery of the large factories, but also the unpretentious motors of the small colonist and the native workman.

Providing electrical equipment is a long and arduous task. For a plant of any importance, five years must pass between the initial surveys and the first revolution of the turbines.

At Katanga, the private local supply circuit has completed a magnificent enterprise: a billion kilowatt-hours a year will soon be provided to consumers. The Public Authorities in other regions have not displayed a like initiative probably because conditions are less favorable and because a clientele which would assure a sufficiently large and steady consumption from the outset does not exist there. But it must be added that we should not expect new electrical plants to be profitable from their inception. Their establishment is just as necessary if we wish to assure the economic prosperity of the Congo.

Four research associations have already been formed: one for Bas-Congo; the second for Albertville; the third for the Ruzizi Valley, Kivu and Ruanda-Urundi, and the fourth for Stanleyville. This last has already started work and will soon be ready to proceed to the allocations.

The administration of utilities will have to be organized in such a way as to ensure the industry's growth while favoring the small colonist; the consumers should benefit by the progressive

reduction of the cost of kilowatt-hours resulting from increased consumption.

C. — SCIENTIFIC RESEARCH.

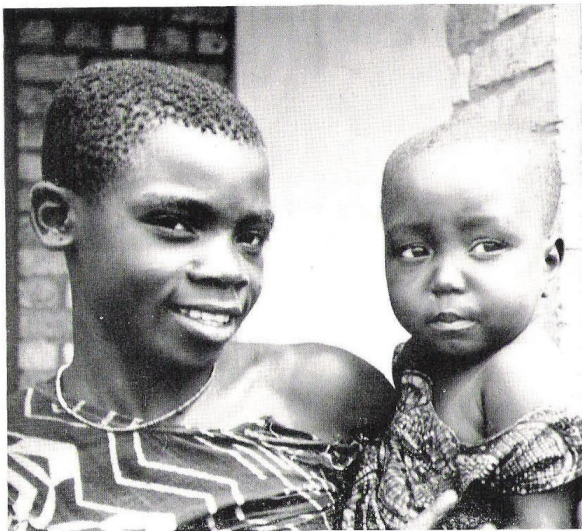
In the third place, the public equipment of the Belgian Congo comprises laboratories and scientific services. The prestige of Belgium, that land of long-standing civilization, is at stake. The energy of our pioneers has opened up a magnificent field of action not only to businessmen, but also to scientists. The "terra incognita" of the old maps, that unknown region peopled by fabulous animals, has become, for scientific research, a chosen land.

The publications of the Belgian Royal Colonial Institute, of the Institute of National Parks, and of the Tervueren Museum and Laboratory are held in repute the wide world over. This endeavor should be intensified. Beside the National Institute for Agronomic Study in the Belgian Congo (INEAC), established by King Albert, the Government founded in 1947 the Institute for Scientific Research in Central Africa (IRSAC). In addition to the agronomic studies reserved to INEAC, this new institution coordinates the work of Belgian savants in all the branches of learning.

Belgian prestige will not suffer, for example, from the fact that we are now thinking of establishing an international observatory in the Belgian Congo, where the celestial vault of the southern hemisphere, until now so little known, can be scrutinized.

But our researches are not all speculative. They are often fertile in practical results. In our modern world, the shortest road to prosperity passes through the laboratories. Progress no longer results from experience or chance, but from systematic research. For this reason, the Government has generously endowed both IRSAC and INEAC so that their researches, already so beneficial for productivity, may be continued and intensified.

Centralized services, whose operations also have a scientific



MOTHER AND CHILD. A young Bakongo woman brings her baby to the doctor for one of the regular check-ups. Formerly, this region had frequent epidemics of sleeping sickness.

nature, exist side by side with these "parastatal" organizations. These services will be reorganized and expanded.

This will be the case with regard to the Geodetic Service and the Cartographic Service. Whether it be a question of public works or of town hydrographic or cadastral surveys, of forest preserves or of land grants, good maps are necessary. Therefore, it has been decided that, each year, 7,413,120 acres will be surveyed according to the most modern methods of aerial cartography.

It is unnecessary to emphasize the importance of the Geological and Hydrological Services. To discover new mines or to oversee their development, to carry out a planned search for

drinking water, to discover regions suitable for agriculture (which are necessary to the application of the Plan), to carry on public works, we must have recourse to Geology. The proper Service will be reorganized and invigorated. It will be, furthermore, assisted by the Geological Commission which has just been organized in Brussels and which will secure the collaboration of all the specialists of the Mother Country.

A comparable endeavor will be made in the field of meteorology which directs the fight against insects, facilitates agricultural research, assures the safety of aerial navigation.

Medical and veterinary laboratories will obtain modern apparatus. Finally, in such a vast land, the Telecommunication System must be extremely well equipped.

For the outfitting of these Services, the Ten-Year Plan provides for an expenditure of \$6,520,000 which will be added to the large subsidies granted to INEAC and to IRSAC.

V.

AGRICULTURE

To estimate the importance of agricultural questions in the Congo, it is important to know that 85% of the population lives in the bush and devotes itself to tilling the soil. The Congo cannot depend on imports for its sustenance but must, on the contrary, find the essential constituents of its subsistence on its own soil. Agricultural products represent, on the other hand, in volume and in value, more than half the exports.

A. — THE ROLE OF THE PUBLIC AUTHORITIES

It has been said that the desert was created by man. That is a truth taught by experience. Where are the rich and well irrigated plains of Mesopotamia which fed a thriving population? The

monuments of this civilization are buried in the sand. A senseless exploitation allowed the nutritive soil, which was the basis of the agricultural wealth of Sicily so vaunted by Cato the Elder, to be washed down into the sea. The same thing happened in Spain. If we are not on guard, the central part of the African continent will soon be threatened with the same sterilization. Erosion will denude the mountain ridges; laterization overlays immense regions with a ferruginous shell. Therefore, it is the duty of the State to see to the conservation of the natural wealth. But it is not enough merely to conserve; we must also work to recover that which has been lost. Geologists assert that certain alluvial lands of the Congo Valley have a fertility comparable to that of the Nile. Suitable irrigation measures would sustain a large and prosperous population. An entire program has been drawn up as a result of the labors of the Antieorsion Mission. The mountains and hills of the East are covered by concentric terraces which hold back the soil on their slopes; 123,500 acres of swampland will be drained as a beginning. Protective timbering along the slopes and around springs, antierosive hedges, firebreak screens protecting the fallow plains, will be set up systematically.

The Public Authorities will not be content with conserving and gaining back arable lands: they must also assume direct responsibility for the development of native agriculture. The men, who live scattered throughout the villages of the bush, are not sufficiently resourceful in themselves to assure their economic progress. Their training is rudimentary; they need agricultural advisors. Their capital is practically nonexistent; they still use antique hoes and machetes; we must, for their sakes, look into the manufacture of suitable equipment and arrange for credit which will allow individual farmers or groups of husbandmen to purchase it. As to the farming methods taught by their ancestors, they are not very productive; more modern processes will have to be applied.

In respect to European enterprises, the influence of the Public

Authorities makes itself felt through a wise policy of concessions. The Government sees to it that the natives' rights are protected; the installation of Europeans on lands that the natives can develop themselves cannot be permitted. The holders of pre-existent claims must, in the case of expropriation, be equitably indemnified. The Government must also require the European developers to utilize to the utmost the means of production placed at their disposal, to be sparing of man-power and to remunerate it adequately. Finally, it must be on the lookout lest the land grants be the object of unwise speculations.

There remains the last mission of the Public Authorities: to promote scientific research, which is at the root of agricultural prosperity. The problems are new. The methods of intensive farming applied in Europe have frequently had disastrous results in this country where the soil is calcined by the equatorial sun and washed by torrential rains.

In the beginning, we were mistaken about the fertility of the soil of Africa which seemed to support a luxuriant vegetation without any effort. But later we realized that the restraint of the natives, who allowed the land to lie fallow for long periods, was founded on experience. The throw-over plow, which is the most elementary agricultural instrument in European countries, in Africa, proved to be an implement of sterility. After systematic studies, new methods, combining local traditions and modern progress, were brought to perfection. It is in this way that Congo agriculture today complies with the principles of rational extensive farming. To enrich this country further, it would be necessary to achieve intensive farming, which presupposes mechanization and the use of fertilizers. Such are the problems being studied by our scientists, and which are still far from being solved!

The expression 'native peasantry' is suggestive. Even today, the country people are content to scratch the soil in order to find there meager nourishment. Our present duty is to create a race

of peasants attached to the soil and capable of drawing therefrom an adequate profit.

A short time ago, we tried to concentrate the population along the highways. This policy rendered their administration easy but was confessed to be bad for agriculture. We have to encourage the return to rich agricultural areas; these latter should be located beforehand by scientific and generalized prospecting.

On the most fertile soils, the people will have to be taught rational methods whose application will make possible the limitation of fallow years and the stabilization of the natives on the lands they cultivate. This is an essential condition of civilization. When a village is finally installed on a favorable spot, we can begin to think of constructing permanent homes, a school and a dispensary, water mains, a mill, a station for seed selection, a fish hatchery, in short, all the equipment of a progressive community.

These methods, now perfected by INEAC, must be popularized. This can be done only by placing white specialists and native monitors in charge of the inhabitants.

Rational methods presuppose the possession of adequate equipment. Implements suited to working conditions in Africa will have to be perfected, mass produced and widely distributed. Agricultural labor is adapted to mechanization with difficulty. But specialists think that three-fourths of the work of the rural population is taken up in the labors that precede and follow tilling. How much machines would ease man's burden!

A social evolution must be expected at the same time as the technical: the group will have to be adapted to the new methods; the confirmation of the property right will lead to attachment to the soil; the better to sell their crops, the natives will form cooperatives.

The agricultural program of the Ten-Year Plan is very vast. In the matter of the cultivation of perennials, 180,310 acres of existing plantations will be rationally developed, and complemented by 222,300 additional acres. This will give economic

stability to 75,000 families. 380,000 other families, almost immediately after the apportionment, will be able to seek ease and security in annual crops. Furthermore, these figures do not take into account the peasantry which will be settled outside the experimentation areas.

B. — VARIOUS AGRICULTURAL ACTIVITIES.

Having scrutinized the native peasantry in a special way, let us now study the various aspects of Congolese agriculture in general.

Cultivation.

It may be predicted that the native peasantry will increase the production of food products as well as annual crops. In this way, the peasant will improve, first of all, his own food and that of the industrial worker. He will grow rich, also, by participating in the export trade.

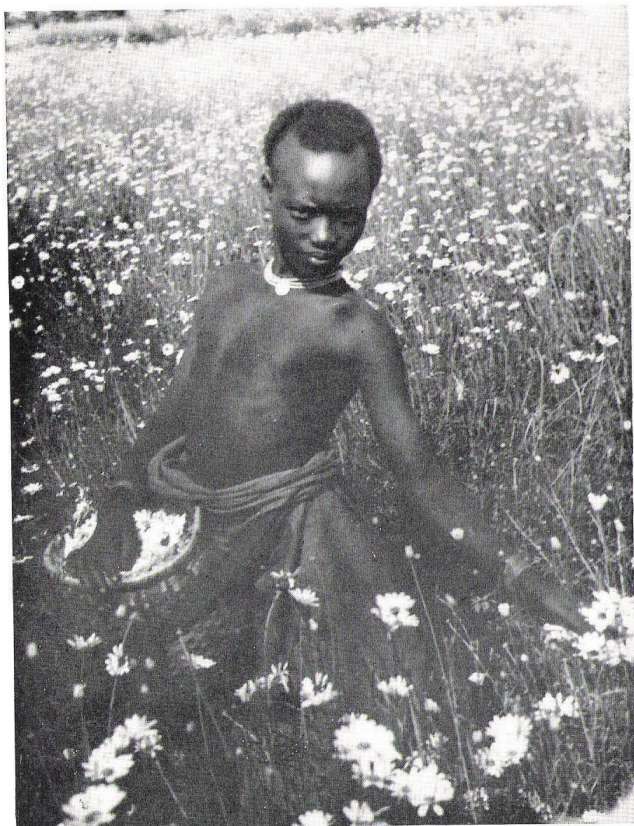
With the scientific help of INEAC, the large European industries, on their side, will increase their productivity.

Although it is impossible, in such matters, to make infallible predictions, it is already certain that progress will be very definite. But the pessimists are worried. It may not be possible to find enough outlets for the harvests. The produce may rot in the warehouses. Economic Malthusianism is quite out of place. A growing world-wide economy, even though it be characterized by temporary slackenings in demand, will have an ever-growing need of raw materials.

The real problem is to place the Congolese producers in the position of being able to compete with the others. First of all, a broadened consumption by the interior market must be developed. Then, quality control and, in particular, industrial conversion will stimulate their export trade.

Stock farming, fishing, and pisciculture.

We are asking the natives to make additional efforts to assure



NOT JUST A POETICAL SCENE. This young girl is gathering pyrethrum flowers, used in making an insecticide.

their own well-being, but, first of all, they must be better nourished. Cassava fills the belly, but doesn't build muscles. Animal proteins are lacking in the daily diet. For this reason, the development and improvement of stockraising are among the essential objectives of the Plan. In this respect, a fine prospect is opening out to the ingenuity of colonists who can devote themselves to intensive stockraising. Prize cattle for slaughter and milk cows will assure them substantial profits. But large ranges will also have to be built up. Thousands of acres will have to be divided into grants for this purpose. Moreover, the Colonial Council has just approved the principle and terms of this policy. Vast, practically uninhabited, stretches will be leased for 99 years, this long-term agreement permitting the amortization of the paid-in capital which these technically difficult developments required. Precautions will be taken to prevent real estate speculations or abandonment of the land. The authorities will see to it, in particular, that the claim-holders will work constantly to better their grazing-lands and ever increase their live-stock.

In addition to colonization and the large ranches, native stock-raising must also be developed. In this sphere, we expect numerous difficulties. The Negro is unaccustomed to caring for animals. That man should be obliged to nurture the animal is, for him, a misconception; animals are supposed to feed man. Happily, our persevering efforts at education have already born fruit. For example, the Mayumbe roads are often blocked by native herds wandering about in search of food.

Our stockraising program cannot be realized quickly. It presupposes, especially, a well equipped Veterinary Department, schools for assistants and laboratories. For a long time, meat will continue to be a rare product. For this reason, it is necessary to promote a substantial yield of fish. The innumerable streams that water the Belgian Congo will be stocked systematically; fish preserves will be multiplied. Thanks to scientific

research, the selected species proliferate and grow with incredible rapidity.

Maritime fishing is also of the greatest economic significance. It was just a year ago that a trawler, having several scientists aboard, cruised back and forth along the coast of the Congo: the first conclusions, recently forwarded to Brussels, are encouraging.

Sylviculture.

Wood can become one of the greatest Congolese products. Aviators well know this equatorial forest which stretches as far as the eye can see. They are, therefore, all the more surprised when they learn that these natural riches are not inexhaustible. This is because, in point of fact, this foliage does not cover all workable woods. Only some of them can be used. When the trees are felled, other more vigorous varieties without commercial value, choke their shoots. It is high time for a rational program of exploitation, and even reforestation, to be applied to the entire Congolese national forest. It is estimated that, at the end of 10 years, production will have to be tripled and attain 35,314,000 cubic feet annually.

Having been thus augmented, this production must be valorized. For example, well equipped sawmills will be able to peel the precious woods, which will prevent our having to export them undressed at great expense with small returns. Then, too, cellulose can be used industrially for making paper pulp, etc. In Belgium, the Gembloux, Louvain and Tervueren laboratories will study substances at present neglected, so that commercial enterprise can make them known and valued by purchasers. A Syndicate has just been established, with the cooperation of the Special Committee of Katanga, to study the development of the vast papyrus plantations of Upper Lualaba.

But the forest is not only capital, it is also a protection. The Congo resembles a kind of sponge in the heart of Africa. Thoughtless deforestation would incur the risk of interfering

with the climate and the flow of water. The fertility of the soil would be threatened. Thence, may be understood the importance that should be placed on the protective measures that the Ten-Year Plan recommends.

CONCLUSIONS.

To sum up, the application of the agricultural program will necessitate an expenditure of about \$26,000,000. It is money well invested, which will increase Congo revenue while husbanding its capital. Above all, it will help the natives, on the one hand in that they are agricultural producers, on the other in that they are consumers of food supplies.

The first organic measures have already been taken. Recall that the native peasantry experiments, begun in the northern part of the Congo, have been extended to the Kasai; the Decree on Cooperatives, approved by the Colonial Council, will give a juridical foundation to the new economic institutions of the villages. In addition, the Government's policy with regard to stockraising has been accurately defined and approved. As for pisciculture and maritime fishing, a commission and a scientific expedition are in operation. The Decree on Forests is now in force.

VI.

MINES AND INDUSTRIES

A. — MINES.

Importance.

Surely it is unnecessary to stress the importance of the mining industry. At the present time, it gives employment to 2,400 whites, all highly specialized technicians. On its rosters, are en-



THE FIGHT AGAINST INSECTS. *From time to time the Health Service, with the help of the Air Force, sprays the countryside with special fumes to combat insects.*

rolled 140,000 natives whose standard of living is, in general, distinctly higher than that of other workers. This is true not only with regard to their material well-being, which is assured in the principal mining concerns, but also to their intellectual progress. On visiting the workshops, one is delighted at seeing intelligent, serious faces, enlivened by interest in their work and a sense of responsibility. The benevolent role of the mines is not limited to the narrow confines of business. The surrounding villages draw an indirect revenue from the operation by furnishing the necessary provisions.

There are whole regions which depend on the mines. Before our arrival in Africa, the Katanga was no more than a desert plain. The extraction, first of copper, then of tin, attracted thereto whole peoples, today prosperous and prolific. So, too, in the northeast, a large area depends on gold mining for its existence.

The importance of the mining industry is not determined merely by the opportunities for employment that it opens up. In 1948, its exports represented 51.87% of the total. In regard to the total fiscal receipts of the State, especially revenue from export duties and the tax on profits, they represent 35% of the general revenue for the same year.

Role of the Public Authorities.

1. — In the Congo, the subsoil is the property of the State. The latter can itself exploit it directly, or grant concessions to it, which is more often the case. A law, fairly old but nonetheless progressive, insures the precedence of the public interest. The State, as a matter of fact, without tying up public funds, still has considerable influence in the General Assemblies. It has the right to progressive royalties which vary according to the extent of the profits apportioned in relation to the capital. It names one or several delegates with complete powers of investigation and supervision. It can buy the concession back after a certain number of years and take possession, without cost, at the end of the concession, of all equipment necessary to carry on the work.

The State has the additional right to subscribe 20% of the initial capital and all successive increases. This increases its influence in the Assembly and its share in the profits. At the time of the company's liquidation, it collects part of the net balance; this share is calculated as if it were a distributable profit.

Of course, to these various benefits, are added the fiscal receipts. Land tax, income tax, export duties end by constituting a total which, for one important company, represented 60% of the 1948 profits.

This is a system which is at once daring and effective. Without any expense, it gives the Public Authorities a share in the profits; on the other hand, it assures them control of exploitation without burdening them with the responsibility for management.

The joint economic system which unites the Public Authorities and private business has given satisfactory results. Mining exploitations are widely developed while assuring the State of substantial receipts. Therefore, it is not necessary to modify the principles of the system, though it can be improved.

2. — There is no question of harassing the producers whose endeavors are the basis of Congo prosperity; but the ascendancy of the public interest must be insured.

First of all, the term of the mining concessions will be shortened. In Belgium, it is perpetual. The term of the concessions should be long enough to allow the operator to equip his mine rationally and to be certain of getting back his investments. On the other hand, the Public Authorities must be assured that exploitation is rational. The solution was formulated in a Mining Decree which was promulgated very recently: the term of the concessions—formerly 90 years—will be reduced; their renewal will be granted if the concessionary adheres reasonably to technical progress and respects social laws.

Within this legal setup, private initiative has the responsibility for an industry which has always been one of the surest factors of economic and social progress. It has been said that the Eastern Congo is a "geological scandal." As a matter of fact, through fissures in the earth, new lodes, full of all kinds of ores, have come to the surface. The reserves are large, but their exploitation presents new problems which call for the attention of our engineers. Underground exploitation must succeed alluvial workings. The prospecting of the underground will have to be intensified and, as a consequence, the Geological Department will be strengthened. On the other hand, the lack of labor calls for mechanization, and the economic evolution will make the establishment of treatment and transformation of factories necessary.

But it is not enough to extract wealth from the bowels of the earth, nor even to develop it; it is further required to sell it at a remunerative price. To assure employment and economic

stability, to facilitate investments and assure their amortization and, finally, to allow for reasonable exploitation, the operators must be able to sign long-term contracts with their purchasers. The Department of the Colonies, aided by the Department of Foreign Commerce, will support them in this field with all its power.

The cost of the development of the mining industry should not be included in the Ten-Year Plan, since investments will be made by private individuals. Their undertakings are enormous and beneficial: they are encompassed by a system of hospitals, dispensaries, schools and social service organizations. They are not only the source of material wealth but also the nucleus of civilization. That is why the State, once having been assured of the necessary controls, must encourage their functioning to the utmost of its ability.

B. — INDUSTRIES.

Importance.

On this mining production, an industry must be superimposed. It is an inevitable tendency of the Congolese economic system, the reasons for which have already been given. Industrialization is the swiftest means of increasing the population's income. By working raw materials, the value of the exports and the national wealth is augmented. Finally, and most important, there is created in this way an internal market which will serve as a ballast to an economic system which, at the present time, is far too unstable.

It really should not be necessary for foreign producers, and especially the Belgians, to fear lest the American market should close in upon itself. The Mother Country cannot arrest a salutary evolution for the welfare of the natives. Moreover, they will profit from it. Perhaps, a lesser quantity of cotton goods and cement, as well as fewer saucepans, will be sold; but it will eventually furnish a client, grown richer, with machines and



AGRICULTURAL PRODUCTS. *A factory for the extraction of palm oil from the Elaeis palm tree. To the left, the silos where the palm oil is stored before shipping.*

merchandise which are more difficult to produce and more expensive.

This evolution has already begun. In 1937, the Belgian Congo numbered 2,314 business ventures. Now, ten years later, there are 4,277. They give employment to 160,000 industrial workers and 57,000 commercial employees. This movement cannot but gather momentum. Already, the industrial triangle (Leopoldville — Elisabethville — Stanleyville) is inscribed on the map. The Plan is drawing up a suggestive inventory of all the industries which are becoming necessary adjuncts to the Congolese economic system. Without any doubt, this enumeration will attract the attention of Belgian businessmen.

Industrial Policy.

What are the characteristic features of this industrial economic system in the process of formation? Geography itself out-

lines them. Belgium, whose communication system is very dense, is situated in the center of three empires: it has a small internal market, excellent labor, and little natural wealth. It had, almost of necessity, to establish a manufacturing industry to make up foreign materials. The situation in the Congo is very different. Industries must be established to facilitate the exportation of products of the soil and of the subsoil and, by that very fact, reduce the incidence of the cost of transportation. Such, for example, would be the function of the oil and the margarine works, of the saw-mills and the paper pulp mills, the copper, zinc, and iron-smelting works, etc. On the other hand, that which, by reason of the vastness of the territory, can be imported only at great expense, must be produced on the spot: such is the role of the breweries, the bottle and the pottery works, textile factories, etc.

Finally, the Congolese industry must take into account the professional ability of its labor, therefore, it will begin with easy technical operations. It must also adapt itself to the limited purchasing power of the inhabitants and offer products of an adequate quality at a nominal price. It has a local market which exceeds the Congo frontiers: in this vast region of the world, live tens of millions of men whose needs, already considerable, will continue to increase.

Role of the Public Authorities.

This industrial development raises difficult problems which will have to be solved by private initiative: difficulties of equipment, in training labor, and of commercial surveys of the markets. We can count on the energies of the Belgians and on the experience of the Belgian businessmen.

But the Public Authorities will not remain inactive. They must bring about conditions in which private enterprise will be able to prosper. They have, first of all, the duty of insuring the economic equipment of the Colony. The Ten-Year Plan cannot

honestly be deprived of the merit of having attacked, with all requisite vigor, the double problem of power and means of communication.

Then, scientific research, indispensable for the adaptation of modern techniques of production to the conditions peculiar to the tropics, will be continued in all fields by INEAC and IRSAC.

Finally, the State will see to it that increased production will be equitably divided, either directly, under the form of increased salaries and prices paid to the natives, or indirectly, by a multiplication of Public Services.

VII.

THE MEANS

Such is the conception of the Ten-Year Plan. Will we have the ability to put it into execution? Both men and money are needed.

A. — MEN

First of all, men are needed, and especially, white specialists.

White Specialists.

The Administration must have a larger staff. At present, the total strength is 4,797 units. It has not yet reached the figures provided for in the organic outline, which are set at 5,415 agents. In all that, there is nothing out of the ordinary: the outline provides for maximum strength calculated in terms of a program to be carried out progressively year after year, according to financial feasibility and the increase of administrative duties.

The application of the Ten-Year Plan will necessitate the adjunction of 1,956 units to the present staff. This figure does not represent the total magnitude of the recruitment which will

take place in the course of these ten years. To this, must be added those necessitated by the normal turnover caused by pensioning the generations, which will be about 2,878 units. On the whole, the Colony must recruit about 4,950 agents in ten years.

To these recruitments of the public sector, will be added the appointments of the private sector. The development of the mines, the establishment of new industries, the augmentation of agricultural cultivation will require the services of an ever greater number of European specialists.

Often such a proposition is received with scepticism. So many candidacies are without result. Actually, a cadre of chiefs and sub-chiefs is needed. Let us repeat again that the European can justify his presence and his standard of living in the Congo only by an incontestable technical superiority.

The problem is to find all this qualified youth. In many regions, the difficulties of recruitment are making themselves felt: doctors, veterinarians, agricultural engineers, hydrological, mining or geological engineers, hydro-electric engineers, superintendents of works. It is true we have lived through a period of maximum employment in the Mother Country; but, conditions can change and any lag can be seriously prejudicial.

The Ten-Year Plan will be of service to youth attending intermediate and high school. It is entering blindly upon life. It knows not where to seek employment. The Plan opens out to it a wonderful, broad perspective and invites it to a great undertaking. Never will a generation have seen Fortune smile on it with such favor. May it be prepared, with enthusiasm, to stand firm and to serve.

Native Specialists.

The execution of the Plan involves the collaboration of numerous natives. Europeans under the African sun are extremely expensive. Taking into account salary and pension, traveling expenses for the agent and his family, housing, medical care,



COPPER MINE. *An open air copper mine at Musonoi, Katanga.*

social service charges, and premature retirement pensions, an average of more than \$8,000 a year is arrived at.

Such a valuable man must be employed with the greatest sagacity. He must be able to rely on collaborators for all secondary duties. Doctors' talents are wasted when we fail to surround them with nurses and medical assistants. The agronomical engineer must be seconded by assistants. For telecommunication, repair-operators are needed. Many other examples could be given.

The most urgent task devolves upon the Educational Department. It is also the noblest. By training the natives, we will show that the Ten-Year Plan is not regarded by us merely as a program of exploitation. It is the instrument not only of material but also of intellectual progress. The natives must not be simply the beneficiaries of the Plan but rather our collaborators.

The task is heavy. Time is needed to train a specialist. The rhythm of an education cannot be hurried as can that of a

machine. It is from this side that the severest check is to be feared. The educational program will have to be started as soon as possible.

B. — MONEY.

The financial aspect is not less important. Shall we find the necessary means?

Generalities.

First, a few preliminary remarks. The financing of the public sector involves an expenditure of \$500,000,000. Of this total, \$100,000,000 proceed from the efforts of individuals and will simply be advanced or guaranteed by the State. They will be invested in directly profitable works which will themselves produce the revenue necessary for amortization (electricity, means of transportation).

What is to be thought of this? The consecutive expenditures toward the public works project proposed by Louis Franck in 1921 amounted to \$127,380,000 gold. Even then, the Government proved resolutely optimistic, and events justified its optimism.

To these 500 millions, are added the needs of the private sector. The demands of the two sectors will eventually call upon the same purses and the same coffers. For this reason, we must add them up. Here, computations are more difficult. A study has been made with the collaboration of the Association of Colonial Interests and large financial groups. It appears that private exploitations will absorb a total amount equal to that of the public sector. Therefore, a total of one billion dollars will be invested in the Congo during the next ten years. The problem is to find them.

But, there is a second financial problem. Part of the expenses is recurrent. At the expiration of the Ten-Year Plan, agents will have been hired and will continue to be paid; loans will have

been arranged; the interest and the amortization will have to be taken care of. Eventually, these expenses will form a permanent part of the Belgian Congo's ordinary budget. Will it remain stable?

Financing Investments.

Let us consider, first, the one billion dollars to be invested. A thorough study shows that the sum is none too high.

The Congo itself offers considerable financial resources. The Corporations have, at all times, maintained a broad policy of self-financing. Private savings increase its own resources in proportion to the growth of colonization, the enlargement of administrative staffs; the creation of a local market for Congo stock will favor its mobilization. The social insurance system builds up greater cash balances which must be invested. The Native Welfare Fund has decided to devote 20 million dollars to the execution of that part of the Ten-Year Plan that particularly interests it. Native savings, themselves, are far from being nonexistent; to private economies, must be added the cash balances of the district officers' staffs and other ordinary groups. The establishment of the Congo Savings Bank is being contemplated.

Above all, there are Belgian savings. Normally, these are not wholly invested within the country itself; some surplus overflows and goes to render foreign fields fertile. Congo territory is auspicious and attractive.

Finally, there is foreign capital. Propositions are not lacking. Suggestions made by large private groups, banks, the Marshall Plan, Point Four of President Truman's program—the possibilities are manifold. This is not the place to discuss them.

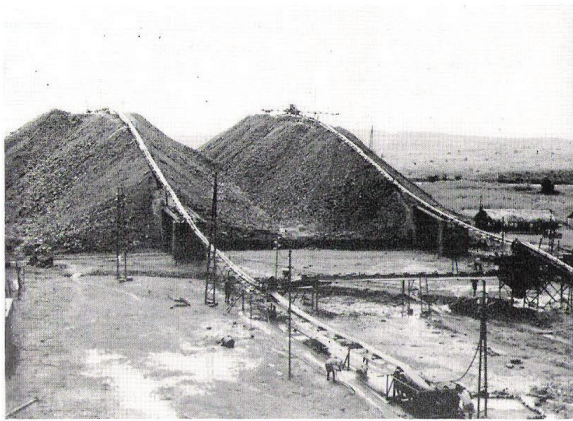
In putting a plan into operation, it is difficult to determine exactly the amount which will be allocated to the Congo, to Belgium, to foreigners. That depends on the evolution of the juncture. It is certain that the greater part of the resources will have to be supplied by Belgian and Colonial savings.

Financing of Ordinary Budgets.

We can now deal with the second problem. When the ten years have passed, everything will not be completed from a financial point of view. New departments will have been established, staff personnel increased, new buildings will have to be maintained. All this will increase the annual budget by about \$34,000,000, according to estimates. On the other hand, the loan service must be assured. The total credit authorized for the public sector will reach, as we have already seen, 500 million dollars. It is possible to deduct therefrom 100 millions which will themselves produce their own returns, 20 millions which will be provided without interest by the Native Welfare Fund, and some 40 millions which will have been recovered or amortized during the ten year period. There still remain 340 millions, the interest on which is difficult of computation inasmuch as the exact terms of the loan are unknown. At the very worst, annual installments (interest and amortization) of 7% can be anticipated, which would mean an annual disbursement of \$23,800,000. The total of the ordinary additional expenditures will, therefore, in ten years, amount to \$34,000,000 plus \$23,800,000, or some \$58,000,000 over the anticipated credit for 1949.

Moreover, deductions must be effected. The ordinary budget, which today amounts to \$89,200,000, includes the extraordinary expenditure of 12 millions, of which a large part duplicates those anticipated in the Plan, and of 9 millions, an allocation to the Emergency Fund. Deducting similar items, it would amount to only \$126,200,000 or 142% of present expenditures at the end of the ten year period.

The execution of the Ten Year Plan will, without doubt, necessitate increased expenditures, but it will also stimulate an augmentation of fiscal receipts. From 1930 to 1948, these receipts, expressed in U. S. dollars, have quintupled; in 10 years—from 1939 to 1948—they increased two and a half times. It is estimated that, at the end of the decennial period, the national



DIAMOND EXTRACTION. *The diamond mines at Bakwanga in Kasai.
Two slag heaps.*

revenue of the Colony will have grown by 70%. If the fiscal receipts augment to the same degree, even though increased expenditures have been reckoned at 42%, the ordinary budget will show a substantial surplus.

But, as a matter of fact, two rectifications must be made in this calculation. First, estimates have been based on present prices and salaries. Now, it would be unwise to count on stability in the prices of exported products. Even now, there is a falling off. However, it may reasonably be supposed that, later on, the average decrease will be one-third, good years compensating for poor. This being true, we are assured a balanced budget. Only, the financial surplus, which seemed higher, will have disappeared. In all probability, there would not even be a deficit if export duties, whose present yield is estimated at \$32,000,000, were entirely suspended.

That is how the Colony's ordinary budget would stand in ten years. But, in the meantime, various crises may interfere with

the execution of the Ten-Year Plan. From the time of the Pharaohs, years of plenty have followed deficit budgets. But that cannot stop the work of providing equipment. First of all, expenditures will themselves foster fiscal receipts in proportion as they are laid out. Economists believe that it is in critical times especially that a vigorous effort must be made to stimulate major undertakings in order to put new life into business. Moreover, reserves put aside during a period of high juncture, can be utilized. In this respect, we have displayed much foresight. Ten percent of the total receipts in 1948 have been placed in an Emergency Fund.

The legal instrument of a cyclic budget must be established. The accountancy department will have to be reformed so that the exact condition of the treasury and an actual balance-sheet of the State will be evident. This is particularly important at a time when the Colony is going to institute vast investments. In respect to these expenditures, we must be able to keep accounts of the accretion of the patrimony. It is to be hoped that these balance-sheets will give evidence of a financial situation founded on solid bases and that—should periods of economic depression intervene—the budgets from cycle to cycle will reflect a growing prosperity.

GENERAL CONCLUSIONS.

Such is the decennial program, which, let us repeat once again, is economic only. The Administration has other duties which are just as imperative. It will accomplish them, also, and all the more easily in that it will have encouraged the organization of a richer and more complex economic system.

I am looking for an epithet which might be given to this collective work. One might be tempted to say that the proposed work is at once audacious and realistic. I should prefer to call it conscientious.

Despite this conscientious research, many improvements can

